

# INFORMATION DISCLOSURE CITATION

PTO-1449

ATTORNEY'S DKT NO.  
028723-061APPLICATION NO.  
08/478,387APPLICANT  
Joe W. GRAY et alFILING DATE  
June 7, 1995GROUP  
1807

## U.S. PATENT DOCUMENTS

| EXAMINER'S INITIALS | PATENT NO. | DATE  | NAME               | CLASS | SUBCLASS | FILING DATE |
|---------------------|------------|-------|--------------------|-------|----------|-------------|
| AM                  | 4,770,992  | 9/88  | Van den Engh et al | 435   | 6        | 11/27/85    |
| AM                  | 4,681,840  | 7/87  | Stephenson et al   | 435   | 6        | 1/18/84     |
| AM                  | 4,725,536  | 2/89  | Fritsch et al      | 435   | 6        | 9/19/85     |
| AM                  | 4,721,669  | 1/88  | Barton             | 435   | 6        | 1/18/85     |
| AM                  | 4,707,440  | 11/87 | Stavrianopoulos    | 435   | 6        | 1/30/84     |
| AM                  | 4,683,195  | 7/87  | Mullis et al       | 435   | 6        | 2/7/86      |
| AM                  | 4,647,529  | 3/87  | Rodland et al      | 435   | 6        | 1/18/84     |
| AM                  | 4,888,278  | 12/89 | Singer et al       | 435   | 6        | 10/13/88    |
| AM                  | 4,358,535  | 11/82 | Falkow et al       | 435   | 5        | 12/8/80     |
| AM                  | 4,711,955  | 12/87 | Ward et al         | 536   | 29       | 5/23/83     |

## FOREIGN PATENT DOCUMENTS

| EXAMINER'S INITIALS | PATENT NO. | DATE  | COUNTRY | CLASS | SUBCLASS | Translation |    |
|---------------------|------------|-------|---------|-------|----------|-------------|----|
|                     |            |       |         |       |          | Yes         | No |
| AM                  | 2019408    | 10/79 | UK      |       |          |             |    |
| AM                  | 2215724    | 9/89  | UK      |       |          |             |    |
| AM                  | 8705027    | 8/87  | WO      |       |          |             |    |
| AM                  | 9005789    | 5/90  | WO      |       |          |             |    |

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |   |
|----|---|
| AM | Albertson, "Mapping Muscle Protein Genes by <i>in situ</i> Hybridization Using Biotin-Labeled Probes," <u>EMBO J.</u> , Vol. 4, No. 10, 1985, pp. 2493-2498   |
| AM | Albertson, "Localization of the Ribosomal Genes in <i>Caenorhabditis elegans</i> Chromosomes by <i>in situ</i> Hybridization Using Biotin-Labeled Probes," <u>EMBO J.</u> , Vol. 3, No. 6, 1984, pp. 1227-1234    |
| AM | Ardeshir et al, "Structure of Amplified DNA in Different Syrian Hamster Cell Lines Resistant to N-(Phosphonacetyl)-L-Aspartate," <u>Molecular and Cellular Biology</u> , Vol. 3, No. 11, Nov. 1983, pp. 2076-2088 |
| AM | Arnoldus et al, "Detection of the Philadelphia Chromosome in Interphase Nuclei (With 2 Color Plates)," <u>Cytogenet. Cell Genet.</u> , Vol. 54, 1990, pp. 108-111   |
| AM | Bar-Am et al, "Detection of Amplified DNA Sequences in Human Tumor Cell Lines by Fluorescence In Situ Hybridization," <u>Genes, Chromosomes &amp; Cancer</u> , Vol. 4, 1992, pp. 314-320                          |

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DATE CONSIDERED

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| AM                  | 4,772,691  | 9/88  | Herman         | 536   | 27       |             |
| AM                  | 4,710,465  | 12/87 | Weissman et al | 435   | 91       | 4/19/84     |
|                     |            |       |                |       |          |             |

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |  |
|----|--|
| AM | Benton et al, "Screening $\lambda$ gt Recombinant Clones by Hybridization to Single Plaques <i>in situ</i> ," <u>Science</u> , Vol. 196, 1977, pp. 180-182   |
| AM | Bergerheim et al, "Deletion Mapping in Human Renal Cell Carcinoma," <u>Cancer Res.</u> , Vol. 49, March 1989, pp. 1390-1396  |
| AM | Bookstein et al, "Human Retinoblastoma Susceptibility Gene: Genomic Organization and Analysis of Heterozygous Intragenic Deletion Mutants," <u>PNAS (USA)</u> , Vol. 85, April 1988, pp. 2210-2214   |
| AM | Brison et al, "General Method for Cloning Amplified DNA by Differential Screening with Genomic Probes," <u>Molecular and Cellular Biology</u> , Vol. 2, No. 5, May 1982, pp. 578-587   |
| AM | Britten et al, "Analysis of Repeating DNA Sequences by Reassociation," <u>Methods of Enzymology</u> , Vol. 29, 1974, pp. 363-418   |
| AM | Buongiorno-Nardelli et al, "Autoradiographic Detection of Molecular Hybrids between rRNA and DNA in Tissue Sections," <u>NATURE</u> , Vol. 225, March 1970, pp. 946-948  |
| AM | Cannizzaro et al, "In Situ Hybridization and Translocation Breakpoint Mapping II. Two Unusual t(21;22) Translocations," <u>Cytogenet. Cell Genet.</u> , Vol. 39, 1985, pp. 173-178   |
| AM | Cantor et al, "The Behavior of Biological Macromolecules, Part III," <u>Biophysical Chemistry</u> , Freeman & Co. 1980, pp. 1183, 1226-1228  |
| AM | Cohen et al, "Hereditary Renal-Cell Carcinoma Associated with a Chromosomal Translocation," <u>N. Engl. J. Med.</u> , Vol. 301, No. 11, Sept. 1979, pp. 592-595  |
| AM | Collins and Weissman, "Directional cloning of DNA fragments at a large distance from an initial probe: A circularization method", <u>PNAS (USA)</u> , 81: 6812-6816 (November 1984)  |
| AM | Cox et al, "Detection of mRNAs in Sea Urchin Embryos by <i>in Situ</i> Hybridization Using Asymmetric RNA Probes," <u>Developmental Biology</u> , Vol. 101, 1984, pp. 485-502  |
| AM | Cremer et al, "Detection of Chromosome Aberrations in Metaphase and Interphase Tumor Cells by <i>in situ</i> Hybridization Using Chromosome-Specific Library Probes," <u>Human Genetics</u> , Vol. 80, 1988, pp. 235-246   |
| AM | Cremer et al, "Detection of Chromosome Aberrations in the Human Interphase Nucleus by Visualization of Specific Target DNAs with Radioactive and Non-Radioactive <i>in situ</i> Hybridization Techniques: Diagnosis of Trisomy 18 with Probe L1.84," <u>Hum. Genet.</u> , Vol. 74, 1986, pp. 346-352 |
| AM | Cremer et al, "Rapid Interphase and Metaphase Assessment of Specific Chromosomal Changes in Neuroectodermal Tumor Cells by <i>in Situ</i> Hybridization with Chemically Modified DNA Probes," <u>Exp. Cell Res.</u> , Vol. 176, 1988, pp. 199-220  |

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Andi M. M. M.

DATE CONSIDERED

9-3-96

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| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) |            |      |  |       |          |                |
| AM   |            |      | Cremer et al, "Rapid Metaphase and Interphase Detection of Radiation-Induced Chromosome Aberrations in Human Lymphocytes by Chromosomal Suppression In Situ Hybridization," <u>Cytometry</u> , Vol. 11, 1990, pp. 110-118                        |       |          |                |
| AM   |            |      | Devilee et al, "Detection of Chromosome Aneuploidy in Interphase Nuclei from Human Primary Breast Tumors Using Chromosome-specific Repetitive DNA Probes," <u>Cancer Res.</u> , Vol. 48, Oct. 1988, pp. 5825-5830                                |       |          |                |
| AM   |            |      | Durnam et al, "Detection of Species Specific Chromosomes in Somatic Cell Hybrids," <u>Som. Cell Molec. Genetics</u> , Vol. 11, No. 6, 1985, pp. 571-577  |       |          |                |
| AM   |            |      | Erikson et al, "Heterogeneity of Chromosome 22 Breakpoint in Philadelphia-positive (Ph <sup>+</sup> ) Acute Lymphocytic Leukemia," <u>PNAS, USA</u> , Vol. 83, March 1986, pp. 1807-1811   |       |          |                |
| AM   |            |      | Fisher et al, "Adhesive and Degradative Properties of Human Placental Cytotrophoblast Cells In Vitro," <u>J. Cell Biol.</u> , Vol. 109, No. 2, 1989, pp. 891-902   |       |          |                |
| AM   |            |      | Fisher et al, "Molecular Hybridization Under Conditions of High Stringency Permits Cloned DNA Segments Containing Reiterated DNA Sequences to be Assigned to Specific Chromosomal Locations," <u>PNAS, USA</u> , Vol. 81, Jan. 1984, pp. 520-524 |       |          |                |
| AM   |            |      | Friend et al, "A Human DNA Segment with Properties of the Gene that Predisposes to Retinoblastoma and Osteosarcoma," <u>Nature</u> , Vol. 323, Oct. 16, 1986, pp. 643-646  |       |          |                |
| AM   |            |      | Fusco et al, "An Efficient Method for Selecting Unique-Sequence Clones from DNA Libraries and Its Application To Fluorescent Staining of Human Chromosome 21 Using <i>in Situ</i> Hybridization," <u>Genomics</u> , Vol. 5, 1989, pp. 100-109    |       |          |                |
| AM   |            |      | Gall et al, "Formation and Detection of RNA-DNA Hybrid Molecules in Cytological Preparations," <u>PNAS (USA)</u> , Vol. 63, 1969, pp. 378-383  |       |          |                |
| AM   |            |      | Gray et al, "Flow Cytometric Detection of Chromosome Aberrations," (Abstract) Conference on Flow Cytometry in Cell Biology and Genetics, Clift Hotel, San Francisco, California, 1/15/85 -1/17/85  |       |          |                |
| AM   |            |      | Gray et al, "Fluorescence Hybridization to Human Chromosome 21 Using Probes From A Charon 21 A Library," <u>Cytometry</u> , (Suppl. 1), 1987, Abst. 19, pg. 4  |       |          |                |
| AM   |            |      | Grunstein et al, "Colony Hybridization: A Method for the Isolation of Cloned DNAs That Contain A Specific Gene," <u>PNAS, USA</u> , Vol. 72, No. 10, Oct. 1975, pp. 3961-3965  |       |          |                |
| AM   |            |      | Harper et al, "Localization of Single Copy DNA Sequences on G-Banded Human Chromosomes by <i>in situ</i> Hybridization," <u>Chromosoma (Berl.)</u> , Vol. 83, 1981, pp. 431-439  |       |          |                |
| AM   |            |      | Harper et al, "Localization of the Human Insulin Gene to the Distal End of the Short Arm of Chromosome 11," <u>PNAS (USA)</u> , Vol. 78, No. 7, July 1981, pp. 4458-4460   |       |          |                |
| AM   |            |      | Herzenberg et al, "Fetal Cells in the Blood of Pregnant Women: Detection and Enrichment by Fluorescence-Activated Cell Sorting," <u>PNAS (USA)</u> , Vol. 76, No. 3, March 1979, pp. 1453-1455   |       |          |                |
| EXAMINER   |            |      | DATE CONSIDERED  |       |          |                |
| Audi Masher  |            |      | 9-3-96   |       |          |                |

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| <b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b> |   |      |      |                                  |          |                               |  |
| AM  | Leroy E. Hood et al, <u>Molecular Biology of Eucaryotic Cells</u> , W. A. Benjamin, Inc., Menlo Park, CA, pgs. 47-51 (1975)   |      |      |                                  |          |                               |  |
| AM  | Jabs et al, "Characterization of a Cloned DNA Sequence that is Present at Centromeres of All Human Autosomes and the X Chromosome and Shows Polymorphic Variation," <u>PNAS (USA)</u> , Vol. 81, August 1984, pp. 4884-4888                       |      |      |                                  |          |                               |  |
| AM  | John et al, "RNA-DNA Hybrids at the Cytological Level," <u>NATURE</u> , Vol. 223, August 1969, pp. 582-587  |      |      |                                  |          |                               |  |
| AM  | Kao et al, "Assignment of the Structural Gene Coding for Albumin to Human Chromosome 4," <u>Human Genetics</u> , Vol. 62, 1982, pp. 337-341   |      |      |                                  |          |                               |  |
| AM  | Kievits et al, "Direct Nonradioactive In Situ Hybridization of Somatic Cell Hybrid DNA to Human Lymphocyte Chromosomes," <u>Cytometry</u> , Vol. 11, 1990, pp. 105-109  |      |      |                                  |          |                               |  |
| AM  | Landegent et al, "Use of Whole Cosmid Cloned Genomic Sequences for Chromosomal Localization of Non-Radioactive <i>in situ</i> Hybridization," <u>Hum. Genet.</u> , Vol. 77, 1987, pp. 366-370   |      |      |                                  |          |                               |  |
| AM  | Landegent et al, "Chromosomal Localization of a Unique Gene by Non-Autoradiographic <i>in situ</i> Hybridization," <u>Nature</u> , Vol. 317, Sept. 1985, pp. 175-177  |      |      |                                  |          |                               |  |
| AM  | Landegent et al, "2-Acetylaminofluorene-Modified Probes for the Indirect Hybridocytochemical Detection of Specific Nucleic Acid Sequences," <u>Exp. Cell Res.</u> , Vol. 153, 1984, pp. 61-72   |      |      |                                  |          |                               |  |
| AM  | Landegren et al, "DNA Diagnostics -- Molecular Techniques and Automation," <u>Science</u> , Vol. 242, Oct. 1988, pp. 229-237  |      |      |                                  |          |                               |  |
| AM  | Langer-Safer et al, "Immunological Method for Mapping Genes on <i>Drosophila</i> Polytene Chromosomes," <u>PNAS (USA)</u> , Vol. 79, 1982, pp. 4381-4385  |      |      |                                  |          |                               |  |
| AM  | Lawrence et al, "Sensitive, High-Resolution Chromatin and Chromosome Mapping <i>In Situ</i> : Presence and Orientation of Two Closely Integrated Copies of EBV in a Lymphoma Line," <u>Cell</u> , Vol. 52, Jan. 1988, pp. 51-61                   |      |      |                                  |          |                               |  |
| AM  | LeGrys et al, "Clinical Applications of DNA Probes in the Diagnosis of Genetic Diseases," <u>CRC Crit. Rev. Clin. Lab. Sci.</u> , Vol. 25, No. 4, 1987, pp. 255-274   |      |      |                                  |          |                               |  |
| AM  | Lewin, "Genetic Probes Become Ever Sharper - Rapid Detection of Multiple-Pathogen Infections, Including Major Drug-Resistance Genes, May be Possible Using a Newly Developed Technique," <u>Science</u> , Vol. 221, No. 4616, Sept. 1983, p. 1167 |      |      |                                  |          |                               |  |
| AM  | Lichter et al, "Delineation of Individual Human Chromosomes in Metaphase and Interphase Cells by <i>in situ</i> Suppression Hybridization Using Recombinant DNA Libraries," <u>Human Genet.</u> , Vol. 80, 1988, pp. 224-234                      |      |      |                                  |          |                               |  |
| AM  | Lichter et al, "Rapid Detection of Human Chromosome 21 Aberrations by <i>in situ</i> Hybridization," <u>PNAS USA</u> , Vol. 85, Dec. 1988, pp. 9664-9668  |      |      |                                  |          |                               |  |
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|                        |            |      |      |       |          |                |

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |   |
|----|---|
| AM | Lichter et al, "High-Resolution Mapping of Human Chromosome 11 by in Situ Hybridization with Cosmid Clones," <u>Science</u> , Vol. 247, Jan. 5, 1990, pp. 64-69   |
| AM | Lichter et al, "Is Non-Isotopic <i>in situ</i> Hybridization Finally Coming of Age?," <u>Nature</u> , Vol. 345, May 1990, pp. 93-94   |
| AM | Litt et al, "A Highly Polymorphic Locus in Human DNA Revealed by Cosmid-Derived Probes," <u>PNAS, USA</u> , Vol. 82, Sept. 1985, pp. 6206-6210  |
| AM | LLNL, "Fluorescent Labeling of Human Chromosomes with Recombinant DNA Probes," <u>Energy &amp; Tech. Review</u> , July 1985, pp. 84-85  |
| AM | LLNL, "Chromosome-Specific Human Gene Libraries," <u>Energy &amp; Tech. Review</u> , July 1985, pp. 82-83   |
| AM | Lucas et al, "Rapid Translocation Analysis Using Fluorescence In Situ Hybridization: Applied to Long Term Biological Dosimetry", (UCRL 102265 Abstract), Radiation Research Meeting, New Orleans, Louisiana, 4/7/90 - 4/12/90   |
| AM | Manuelidis, "Individual Interphase Chromosome Domains Revealed by <i>in situ</i> Hybridization," <u>Hum. Genet.</u> , Vol. 71, 1985, pp. 288-293  |
| AM | Manuelidis et al, "Chromosomal and Nuclear Distribution of the HindIII 1.9-kb Human DNA Repeat Segment," <u>Chromosoma (Berl.)</u> , Vol. 91, 1984, pp. 28-38   |
| AM | Manuelidis, "Different Central Nervous System Cell Types Display Distinct and Nonrandom Arrangements of Satellite DNA Sequences," <u>PNAS (USA)</u> , Vol. 81, May 1984, pp. 3123-3127  |
| AM | McCormick, "The Polymerase Chain Reaction and Cancer Diagnosis," <u>Cancer Cells</u> , Vol. 1, No. 2, Oct. 1989, pp. 56-61  |
| AM | Montgomery et al, "Specific DNA Sequence Amplification in Human Neuroblastoma Cells," <u>PNAS USA</u> , Vol. 80, Sept. 1983, pp. 5724-5728  |
| AM | Nederlof et al, "Detection of Chromosome Aberrations in Interphase Tumor Nuclei by Nonradioactive In Situ Hybridation," <u>Cancer Genet. Cytogenet.</u> , Vol. 42, 1989, pp. 87-98  |
| AM | Olsen et al, "Isolation of Unique Sequence Human X Chromosomal Deoxyribonucleic Acid," <u>Biochemistry</u> , Vol. 19, 1980, pp. 2419-2428   |
| AM | Pinkel et al, "Detection of Structural Chromosome Aberrations in Metaphase Spreads and Interphase Nuclei by <i>in situ</i> Hybridization High Complexity Probes Which Stain Entire Human Chromosomes," <u>Am. J. Hum. Genet.</u> (Supplement) Vol. 43, No. 3, Sept. 1988, p. A118 (Abstract 0471: 11.5) |
| AM | Pinkel et al, "Cytogenetic Analysis Using Quantitative, High-Sensitivity, Fluorescence Hybridization," <u>PNAS (USA)</u> , Vol. 83, May 1986, pp. 2934-2938   |
| AM | Pinkel et al, "Cytogenetic Analysis by <i>In Situ</i> Hybridization with Fluorescently Labeled Nucleic Acid Probes," <u>Cold Spring Harbor Symposia on Quantitative Biology</u> , Vol. LI, 1986, pp. 151-157  |

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| AM  | Pinkel et al, "Genetic Analysis by Quantitative Microscopy and Flow Cytometry Using Fluorescence <i>In Situ</i> Hybridization with Chromosome-Specific Nucleic Acid Probes," <u>Am. J. Hum. Genet.</u> (Supplement), Vol. 39, No. 3, Sept. 1986, p. A129 (379)                                       |      |      |                                  |          |                               |  |
| AM  | Pinkel et al, "Cytogenetic Analysis During Leukemia Therapy Using Fluorescence <i>in situ</i> Hybridization with Chromosome-Specific Nucleic Acid Probes," <u>Am. J. Hum. Genet.</u> (Supplement), Vol. 41, No. 3, Sept. 1987, p. A34 (096; 12.12)   |      |      |                                  |          |                               |  |
| AM  | Pinkel et al, "Simplified Cytogenetics Using Biotin Labeled Nucleic Acid Probes and Quantitative Fluorescence Microscopy," <u>Am. J. Hum. Genet.</u> (Supplement), Vol. 37, No. 4, July 1985, pp. A112 (328; 17.2)   |      |      |                                  |          |                               |  |
| AM  | Pinkel et al, "Fluorescence <i>in situ</i> Hybridization with Human Chromosome-Specific Libraries: Detection of Trisomy 21 and Translocations of Chromosome 4," <u>PNAS (USA)</u> , Vol. 85, Dec. 1988, pp. 9138-9142  |      |      |                                  |          |                               |  |
| AM  | Pinkel et al, "Cytogenetics Using Fluorescent Nucleic Acid Probes and Quantitative Microscopic Measurement" (UCRL 93269 Abstract) Analytical Cytology X Conference, Hilton Head Resort, Hilton Head Island, S.C., 11/17/85 - 11/22/85  |      |      |                                  |          |                               |  |
| AM  | Pinkel et al, "Rapid Quantitative Cytogenic Analysis Using Fluorescently Labeled Nucleic Acid Probes", (UCRL 93553 Abstract), U.S. - Japan Joint Environmental Panel Conf., Research Triangle Park, N.C., 10/21/85 - 10/23/85  |      |      |                                  |          |                               |  |
| AM  | Pinkel et al, "Detection of Structural and Numerical Abnormalities in Metaphase Spreads and Interphase Nuclei Using In Situ Hybridization", <u>Cancer Genet. and Cytogenet.</u> (UCRL 101043 Abstract) 41:236 (October 1989)   |      |      |                                  |          |                               |  |
| AM  | Lewin, <u>Genes</u> , (2nd Ed., John Wiley & Sons, Inc. 1984) pp. 298-299 and pp.464-465   |      |      |                                  |          |                               |  |
| AM  | Pinkel et al, "Detection of Translocations and Aneuploidy in Metaphase Spreads and Interphase Nuclei by In Situ Hybridization with Probes Which Stain Entire Human Chromosomes," (UCRL 101042 Abstract) 21st Oak Ridge Conference on Advanced Concepts in the Clinical Laboratory, 4/13/89 - 4/14/89 |      |      |                                  |          |                               |  |
| AM  | Rappold et al, "Sex Chromosome Positions in Human Interphase Nuclei as Studied by <i>in situ</i> Hybridization with Chromosome Specific DNA Probes," <u>Human Genetics</u> , Vol. 67, 1984, pp. 317-322  |      |      |                                  |          |                               |  |
| AM  | Roelofs et al, "Gene Amplification in Human Cells May Involve Interchromosomal Transposition and Persistence of the Original DNA Region," <u>The New Biologist</u> , Vol. 4, No. 1, (Jan. 1992), pp. 75-86   |      |      |                                  |          |                               |  |
| AM  | Scalenghe et al, "Microdissection and Cloning of DNA from a Specific Region of <i>Drosophila melanogaster</i> Polytene Chromosomes," <u>Chromosoma (Berl.)</u> , Vol. 82, 1981, pp. 205-216  |      |      |                                  |          |                               |  |
| EXAMINER<br>Audi Marshall   |  |      |      | DATE CONSIDERED<br>9-3-96        |          |                               |  |

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| <b>INFORMATION DISCLOSURE<br/>CITATION</b><br><br>PTO-1449                    |   | ATTORNEY'S DKT No.<br>028723-061 |      | APPLICATION No.<br>08/478,387 |          |                |
|   |   | APPLICANT<br>Joe W. GRAY et al   |      |                               |          |                |
|   |   | FILING DATE<br>June 7, 1995      |      | GROUP<br>1807                 |          |                |
| <b>U.S. PATENT DOCUMENTS</b>  |   |                                  |      |                               |          |                |
| EXAMINER'S<br>INITIALS  | PATENT NO.  | DATE                             | NAME | CLASS                         | SUBCLASS | FILING<br>DATE |
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| <b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b> |   |                                  |      |                               |          |                |
| AM  | Schardin et al, "Specific Staining of Human Chromosomes in Chinese Hamster X Man Hybrid Cell Lines Demonstrates Interphase Chromosome Territories," <u>Hum. Genet.</u> , Vol. 71, 1985, pp. 281-287   |                                  |      |                               |          |                |
| AM  | Schmeckpeper et al, "Partial Purification and Characterization of DNA from the Human X Chromosome," <u>PNAS (USA)</u> , Vol. 76, No. 12, Dec. 1979, pp. 6525-6528   |                                  |      |                               |          |                |
| AM  | Sealey, et al, "Removal of Repeated Sequences from Hybridisation Probes," <u>Nucleic Acid Research</u> , Vol. 13, No. 6, 1985, pp. 1905-1922  |                                  |      |                               |          |                |
| AM  | Selypes et al, "A Noninvasive Method for Determination of the Sex and Karyotype of the Fetus from the Maternal Blood," <u>Hum. Genet.</u> , Vol. 79, 1988, pp. 357-359  |                                  |      |                               |          |                |
| AM  | Smith et al, "Distinctive Chromosomal Structures Are Formed Very Early in the Amplification of CAD Genes in Syrian Hamster Cells," <u>Cell</u> , Vol. 63, (Dec. 21, 1990), pp. 1219-1227  |                                  |      |                               |          |                |
| AM  | Sparkes et al, "Regional Assignment of Genes for Human Esterase D and Retinoblastoma to Chromosome Band 13q14," <u>Science</u> , Vol. 208, May 30, 1988, pp. 1042-1044  |                                  |      |                               |          |                |
| AM  | Stewart et al, "Cloned DNA Probes Regionally Mapped to Human Chromosome 21 and Their Use in Determining the Origin of Nondisjunction," <u>Nucleic Acids Research</u> , Vol. 13, No. 11, 1985, pp. 4125-4132   |                                  |      |                               |          |                |
| AM  | Straume et al, "Chromosome Translocation of Low Radiation Doses Quantified Using Fluorescent DNA Probes", (UCRL 93837 Abstract), Radiation Research Society Meeting, Las Vegas, Nevada, 4/12/86 - 4/17/86   |                                  |      |                               |          |                |
| AM  | Szabo et al, "What's New With Hybridization <i>in situ</i> ?", <u>TIBS</u> , Vol. 7, No. 11, December 1982, pp. 425-427   |                                  |      |                               |          |                |
| AM  | Thompson et al, <u>Thompson &amp; Thompson: Genetics in Medicine</u> , 5th ed., W.B. Saunders Co., Philadelphia, PA, pages 38-39 (1991)   |                                  |      |                               |          |                |
| AM  | Trask et al, "The Proximity of DNA Sequences in Interphase Cell Nuclei Is Correlated to Genomic Distance and Permits Ordering of Cosmids Spanning 250 Kilobase Pairs," <u>Genomics</u> , Vol. 5, 1989, pp. 710-717                                  |                                  |      |                               |          |                |
| AM  | Trask et al, "Detection of DNA Sequences in Nuclei in Suspension by In Situ Hybridization and Dual Beam Flow Cytometry" (UCRL 93372 Abstract) - Analytical Cytology X Conference, Hilton Head Resort, Hilton Head Island, S.C., 11/17/85 - 11/22/85 |                                  |      |                               |          |                |
| AM  | Trask et al, "Early Dihydrofolate Reductase Gene Amplification Events in CHO Cells Usually Occur on the Same Chromosome Arm as the Original Locus," <u>Genes &amp; Development</u> , Vol. 3, (1989), pp. 1913-1925                                  |                                  |      |                               |          |                |
| AM  | Trent et al, "Report of the Committee on Structural Chromosome Changes in Neoplasia," <u>Cytogenet. Cell Genet.</u> , Vol. 51, 1989, pp. 533-562  |                                  |      |                               |          |                |
| AM  | Van Dilla et al, "Construction and Availability of Human Chromosome-Specific DNA Libraries From Flow Sorted Chromosomes: Status Report," <u>Am. J. of Human Genetics</u> , Vol. 37 (R Supplement) July 1985, p. A179                                |                                  |      |                               |          |                |
| EXAMINER  |   | <i>Andi Marshall</i>             |      | DATE CONSIDERED               |          | <i>9-3-96</i>  |

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# INFORMATION DISCLOSURE CITATION

PTO-1449

ATTORNEY'S DKT NO.  
028723-061APPLICATION NO.  
08/478,387APPLICANT  
Joe W. GRAY et alFILING DATE  
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## U.S. PATENT DOCUMENTS

| EXAMINER'S<br>INITIALS | PATENT NO. | DATE | NAME | CLASS | SUBCLASS | FILING<br>DATE |
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## FOREIGN PATENT DOCUMENTS

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |  |
|----|--|
| AM | Wallace et al, "The Use of Synthetic Oligonucleotides as Hybridization Probes - II Hybridization of Oligonucleotides of Mixed Sequence to Rabbit $\beta$ Globin DNA," <u>Nucleic Acids Research</u> , Vol. 9, No. 4, 1981, pp. 879-894 |
| AM | Weiss et al, "Organization and Evolution of the Class I Gene Family in the Major Histocompatibility Complex of the C57BL/10 Mouse," <u>Nature</u> , Vol. 310, No. 23, Aug. 1984, pp. 650-655   |
| AM | Willard et al, "Isolation and Characterization of a Major Tandem Repeat Family from the Human X Chromosome," <u>Nucleic Acids Research</u> , Vol. 11, No. 7, 1983, pp. 2017-2033   |
| AM | Windle et al, "A Central Role for Chromosome Breakage in Gene Amplification, Deletion Formation, and Amplicon Integration," <u>Genes &amp; Development</u> , Vol. 5, (1991), pp. 160-174   |
| AM | Yunis et al, "Localization of Sequences Specifying Messenger RNA to Light-Staining G-Bands of Human Chromosomes," <u>Chromosoma (Berl.)</u> , Vol. 61, 1977, pp. 335-344   |

EXAMINER

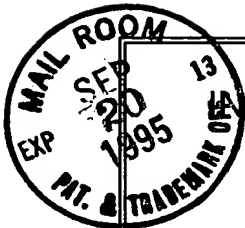
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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

|    |  |
|----|--|
| AM | Angerer et al, "In Situ Hybridization to Cellular RNAs," <u>Genetic Engineering: Principles and Methods</u> , Setlow and Hollaender, Eds., Vol. 7, pp. 43-65, Plenum Press, New York (1985)  |
| AM | Bayer et al, "The Use of the Avidin-Biotin Complex as a Tool in Molecular Biology," <u>Methods of Biochemical Analysis</u> , Vol. 26, pp. 1-45 (1980)  |
| AM | Brigati et al, "Detection of Viral Genomes in Cultured Cells and Paraffin-Embedded Tissue Sections Using Biotin-Labeled Hybridization Probes," <u>Virology</u> , Vol. 126, pp. 32-50 (1983)  |
| AM | Broker et al, "Electron Microscopic Visualization of tRNA Genes with Ferritin-Avidin: Biotin Labels," <u>Nucleic Acids Research</u> , Vol. 5, No. 2, pp. 363-384 (1978)  |
| AM | Connolly et al, "Chemical Synthesis of Oligonucleotides Containing A Free Sulphydryl Group and Subsequent Attachment of Thiol Specific Probes," <u>Nucleic Acids Research</u> , Vol. 13, No. 12, pp. 4485-4502 (1985)                                |
| AM | Fusco et al, "Construction of Fifteen Human Chromosome-Specific DNA Libraries from Flow-Purified Chromosomes," <u>Cytogenetic Cell Genetics</u> , Vol. 43, pp. 79-86 (1986)  |
| AM | Gall et al, "Nucleic Acid Hybridization in Biological Preparations," <u>Methods in Enzymology</u> , Vol. 21, pp. 470-480 (1981)  |
| AM | Henderson, "Cytological Hybridization to Mammalian Chromosomes," <u>International Review of Cytology</u> , Vol. 76, pp. 1-46 (1982)  |
| AM | Kuhlmann, <u>Immuno Enzyme Techniques in Cytochemistry</u> , Verlag Chemie, Weinheim, Basel (1984) (table of contents only)  |
| AM | Lawn et al, "The Isolation and Characterization of Linked $\delta$ - and $\beta$ -Globin Genes from a Cloned Library of Human DNA," <u>Cell</u> , Vol. 15, pp. 1157-1174 (1978)  |
| AM | Maniatis et al, "In Vitro Packaging of Bacteriophage $\lambda$ DNA," <u>Molecular Cloning: A Laboratory Manual</u> , Cold Spring Harbor Laboratory, pp. 256-307 (1982)   |
| AM | Marmur, "A Procedure for the Isolation of Deoxyribonucleic Acid from Micro-organisms," <u>J. Mol. Biol.</u> , Vol. 3, pp. 208-218 (1961)   |
| AM | Richardson et al, "Biotin and Fluorescent Labeling of RNA Using T4 RNA Ligase," <u>Nucleic Acids Research</u> , Vol. 11, No. 18, pp. 6167-6184 (1983)  |
| AM | Smith et al, "The Synthesis of Oligonucleotides Containing an Aliphatic Amino Group at the 5' Terminus: Synthesis of Fluorescent DNA Primers For Use In DNA Sequence Analysis," <u>Nucleic Acids Research</u> , Vol. 13, No. 7, pp. 2399-2412 (1985) |
| AM | Tchen et al, "Chemically Modified Nucleic Acids as Immunodetectable Probes in Hybridization Experiments," <u>PNAS</u> , Vol. 81, pp. 3466-3470 (1984)  |

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